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Modified PTO/SB/33 (10-05) Docket Number PRE-APPEAL BRIEF REQUEST FOR REVIEW CQ10139 Application Number Filed 10/037,560 January 4, 2002 Mail Stop AF First Named Inventor Commissioner for Patents Eyal DOTAN P.O. Box 1450 Alexandria, VA 22313-1450 Examiner Art Unit Brandon S. **HOFFMAN** 2136 23493 Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal The review is requested for the reasons(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided. ☑ I am an attorney or agent of record. Registration number Joseph Bach Typed or printed name (650) 625-8100 Telephone number September 24, 2007

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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: CQ10139

Eyal DOTAN

Confirmation No.: 7101

Appln. No.: 10/037,560

Group Art Unit: 2136

Filed: January 4, 2002

Examiner: Brandon S. HOFFMAN

For: M

METHOD OF PROTECTING COMPUTER PROGRAMS AND DATA FROM HOSTILE

CODE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

MAIL STOP AF - PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to the Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated March 30, 2007, and Advisory Action dated August 13, 2007, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

Applicant turns now to the rejections at issue, starting with a summary of the claimed invention and cited art. The claimed invention relates to protecting computers from hostile code, by controlling operations on the computer irrespective of the rights of the operator. The claimed invention assigns each object and process to a trust group, assigns each object to an object type, and defines a plurality of operation types. Each trust group is characterized by a trust group value and pointers to FromLower and ToLower rules lists. The rules lists include action rules, each of which listing a combination of operation type, an object type, and an action (example of action are given as open, read, write, etc., see, Paragraph [0084]). When a process requests

access to an object, the trust group value of the process and object are checked to select a pointer to the proper rules list, and then determine the appropriate rule from that rules list to apply to that request.

The primary reference, Keronen, relates to preventing disclosure of protected information (see Title). For each entity on the computer, Keronen assigns a trusted/untrusted indicator, a clean/exposed to protected information indicator, and a public/protected indicator (cl. 5, Ln. 26-32). According to Keronen, trusted entities may freely exchange information, while untrusted entities may exchange information under restrictions (Cl. 5, Ln. 37-43). Keronen further discloses that once an untrusted entity is exposed to protected information it cannot freely disclose that information (Cl. 6, Ln. 10-21). Disclosure, per Keronen, includes transmission over Internet, printing, and displaying on monitor (Cl. 6, Ln. 13-18).

The secondary reference, Edwards, relates to managing dynamic decision trees in data packet switch (Title, Abstract). Edwards describes a manner to modify a decision tree in a switch, without causing disruption or delay in the switch operation (Cl. 1, Ln. 55-62). Edwards describes lookup units that receive packets, read instructions from the decision tree, and execute the instructions (Cl. 3, Ln. 11-18). Edwards discloses certain types of instructions, such as branch, action, and others (Cl. 3, Ln. 24-39). The instructions include rules that may be used to create and modify decision trees, each rule having a set of conditions and a set of actions (Col. 3, Ln. 40-45).

As can be understood from the above, other than the use of rules, Edwards has nothing to do with the claimed invention and/or with the primary reference Keronen. But for the Examiner's torturous interpretation of the Edwards' disclosure, this reference should be

summarily dismissed from this case. Moreover, Applicant respectfully submits that Keronen differs significantly from the claimed invention and fails to disclose or suggest the recited limitations of the independent claims.

Turning to the particulars of the pending rejection, with regards to Claim 1, the Examiner failed to indicate where in Keronen the following limitation is disclosed:

defining at least two trust groups, each of the defined trust groups being characterized by a trust group value, a FromLower rules list pointer, and a ToLower rules list pointer

Specifically, the Examiner points to Keronen as teaching the partial limitation of defining trust groups, but stops short of the complete limitation as recited in the claim. This omission is understandable, as indeed nowhere does Keronen teach or suggest the feature of trust groups characterized by a trust group value, a FromLower rules list pointer, and a ToLower rules list pointer. Rather, Keronen only teaches the binary concept of trusted/untrusted, which is well known in the art. Realizing this deficiency, the Examiner alleges that it would have been obvious to incorporate the node pointers of the decision tree of Edwards into the trusted/untrusted definition of Keronen, so as to come up with the claimed limitation. Clearly, Keronen contemplates a binary definition of trusted/untrusted and does not as much a hint about the need for any other definition. Furthermore, the idea of incorporating a decision tree pointer into the trusted/untrusted definition of Keronen has no basis in reality. Keronen's entire system is based on the binary decision trusted/untrusted, and inserting pointers to decision tree nodes is meaningless in such a system, as Keronen does not define rules to which such pointers would point to.

The Examiner further alleges that Keronen discloses the limitation defining a plurality of action rules. However, as with the previous limitation, the Examiner fails short of addressing the complete limitation. The entire limitation states:

defining a plurality of action rules, each of the action rules corresponding to at least one of the FromLower or ToLower rules list pointers, each of the action rules listing a combination of an operation type from the plurality of operation types; an action; and object type;

This limitation defines an intricate relationship between the action rules and the list pointer, and explains the constitution of each rule. Rather than properly addressing this limitation for what it clearly states, the Examiner picks it apart and refers to four figures and about two columns of Keronen as providing a teaching of this limitation. In the cited passages, Keronen explains how an entity is marked once it is exposed to protected information, and how then the untrusted entity is prevented from revealing this protected information. In the cited passages Keronen does not teach defining a plurality of rules, let alone rules that list combinations of operation type, object type, and action. Moreover, since Keronen does not teach defining a plurality of action rules, it is not clear how one is to make the leap into having the decision tree pointers of Edwards operate to point to the undefined rules, as suggested by the Examiner.

The Examiner points to Col. 5, Ln. 46 to Col. 6, Ln. 21 as teaching the "when the trust group value of the trust group of the process is higher..." limitation. As noted above, in this passage Keronen explain how an untrusted entity that has been exposed to protected information is marked as "exposed" and is then prevented from revealing that information. There is no disclosure in the cited passage of inspecting rules corresponding to the ToLower pointer to

obtain the proper action. Rather Keronen simply and in a straight fashion marks the entity as exposed and prevents it from exposing the information. In a similar fashion, the Examiner asserts that Col. 6, line 66 to Col. 7, Ln. 24, discloses the "when the trust group value of the trust group of the process is smaller..." limitation. In this cited passage Keronen teaches how an entity is marked as exposed due to a write operation. Nothing in this cited passage relates to list of rules that related to the claimed pointers and provides combinations of operation type, object type, and action.

To summarize, the office action fails to follow the mandate of taking the claim "as a whole" and apply the art to the claimed invention. Rather, extreme efforts have been made to take various passages of the cited art and make them fit onto partial clauses of the claims. At least for these reasons, Applicant respectfully submits that all of the pending claims are allowable over the cited art.

Respectfully submitted,

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